

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch

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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-014054**Date Inspected:** 15-May-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Mr. Huang min**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Orthotropic Box Girder( OBG)**Summary of Items Observed:**

This CALTRANS OSM Quality Assurance Inspector (QA) Surendra Prabhu was present during the times noted above for observations relative to the fabrication of the Self Anchored Suspension (SAS) Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island, in Shanghai, China. QA observed and/or found the following:

BAY-5

The following Non Destructive Testing (NDT) Inspection carried out as per the ZPMC submitted Notification No. 005735.

**Magnetic Particle Testing (MT)**

This QA Inspector performed MT of approximately 15% of the area previously tested and accepted by ZPMC Quality Control (QC) personnel. This QA generated MT report for this date. The members are identified as OBG Traveler Rail weld Components. Total number of welds MT Tested: 43 No's. The weld designations are review as follows:

1. TR5D-PP057-007
2. TR6B-PP060-003
3. TR6B-PP054-003
4. 10TR2-010-006,010,013,014.

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5. 10TR2-018-006,010,013,014.
6. 10TR1-013-006,010,013,014.
7. 10TR2-012-006,010,013,014.
8. 10TR2-011-006,010,013,014.
9. 10TR1-030-006,010,013,014.
10. 11TR2-010-006,010,013,014.
11. 11TR3-004-006,010,013,014.
12. 11TR3-016-006,010,013,014.
13. 11TR1-016-006,010,013,014.

During MT this QA Inspector observed 1 (one) Transverse surface linear indication(Appx.04 mm in length) on weld No:11TR3-004-014.This QA informed to ZPMC QC identified as Cui jun jie and AB/F QA Inspector identified as Mr.Wang wen bin of this issue. The indication has been ground out and MT re tested found to be acceptable.

Refer attached photos for reference.

BAY-7

This QA Inspector Randomly observed the following work in progress:

Flux Cored Arc Welding (FCAW) of weld joint DP3096-001-028. Welder is identified as 051246. ZPMC Quality Control (QC) is identified as Mr. Cui jun jie. The welding variables recorded by QC appeared to comply with the Applicable WPS: WPS-B-T-4132.

FCAW buttering welding of Traveler Rail 22TR4-001. Welder is identified as 053609. ZPMC Quality Control (QC) is identified as Mr. Wang jian. The welding variables recorded by QC appeared to comply with the Applicable WPS: WPS-345-FCAW-1G (1F)-Repair-1.The buttering was been performed as per the Critical Welding Report (CWR) No:B-CWR1374.

BAY-8

FCAW of weld joint BK004A4-056-040. Welder is identified as 040671. ZPMC Quality Control (QC) is identified as Mr. Xia Yong Zhong. The welding variables recorded by QC appeared to comply with the Applicable WPS: WPS-B-T-2132.

This QA Inspector observed that ZPMC Personnel performing Heat Straightening with using a crane lifting upward with an unknown amount of uplifting force on the Bike Path Deck plate while heating. Heat Straightening was being performed as per the HSR Report#HSR1 (B) 8236. The component and Weld number is identified as BK004A1-055-009.

This QA Informed to ZPMC QC Inspector identified as Mr. Liu Chuan Qang and American Bridge/Fluor QA Inspector Mr. Wang wen bin of the above issue, and reported to Team leader.

This QA Inspector is did not generated an incident report as per the Team leader's instruction for the above issue. Refer attached photos for reference.

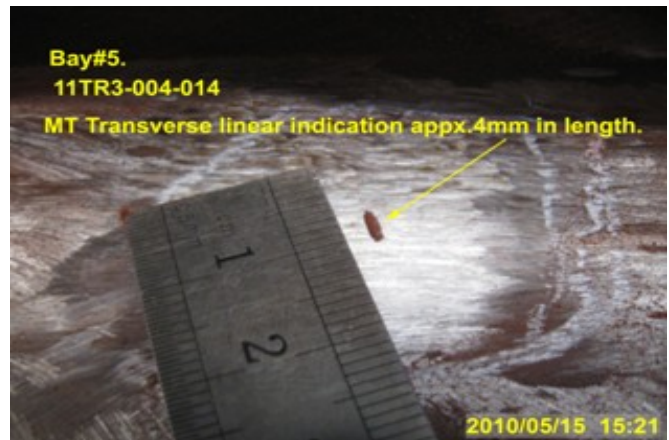
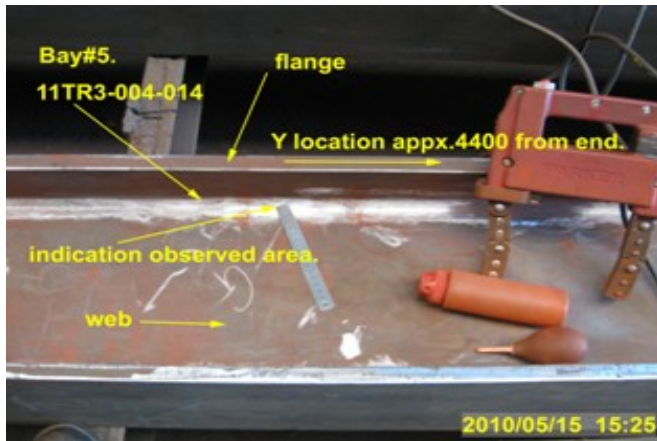
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Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.



### Summary of Conversations:

Only general conversation was held between QA and Quality Control (QC) concerning this project.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang 15000422372, who represents the Office of Structural Materials for your project.

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**Inspected By:** Prabhu,Surendra

Quality Assurance Inspector

**Reviewed By:** Hall,Steven

QA Reviewer

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